

ABSTRACT OF THE DISCLOSURE

A method and a device for testing a structural component having a complex surface contour utilizing ultrasound, at least one ultrasonic head (UPK) being guided along the surface contour (OK) of the structural component (BT) by means of a manipulator (MM) having several axial drives (MX, MJ, MZ, MA, MB) in several axes at a defined spacing (A) along the surface contour (OK) of the structural component (BT). To also ensure a high measuring accuracy in structural components which have a complex curved surface contour, the axial drives (MX, MJ, MZ, MA, MB) of the manipulator (MM) are synchronously moved along predetermined support points, a trigger drive (MRT) is controlled in synchronism with the axial drives (MX, MJ, MZ, MA, MB) and moved together with all engaged axial drives according to a predetermined surface line (OL) reproducing the surface contour (OK) and the trigger drive (MRT) generates equidistant trigger pulses relative to the surface line (OL) of the complex surface contour.